

In the Specification

Please delete the paragraph beginning on page 2, line 8, and replace it with the following amended paragraph:

In yet another aspect, the present invention is directed to an integrated paper comprising of: a plurality of fibers fibrillated at a temperature greater than about 30°C, wherein the fibers have an average fiber diameter of less than about 400 nm; and one or more acid neutralizing agents admixed with the fibrillated fibers; wherein the integrated paper can withstand a hot and corrosive environment of a lube oil filter. The integrated paper may further ~~including~~ include binder fibers fiber particles. Preferably, the one or more acid neutralizing agents comprises magnesium oxide, magnesium hydroxide, calcium sulfonate, magnesium sulfonate, calcium phenate, magnesium phenate, or combinations thereof.

Please delete the paragraph beginning on page 2, line 27, and replace it with the following amended paragraph:

In a further aspect, the present invention is directed to an integrated paper comprising of: a plurality of fibers having an average fiber diameter of less than about 1000 nm; and a lead reducing agent admixed with the plurality of fibers, wherein the integrated paper has a mean flow path of less than about 2 μ m. The integrated paper may further ~~including~~ include binder fibers fiber particles. The integrated paper may be wrapped around a carbon block.

Please delete the paragraph beginning on page 21, line 21, and replace it with the following amended paragraph:

One embodiment of the integrated paper of the present invention useful in point-of-use gravity-flow water filtration systems includes fibrillated fibers and particles of activated carbon and heavy metal reducing agents. The mean flow path of the activated carbon integrated paper is less than about 2 pm, and preferably less than about 1 pm. The tight pore structure easily allows for mechanical interception of the larger microbiological contaminants such as protozoan cysts. Addition of the microbiological interception enhancing agent aids in electro-kinetic adsorption of smaller particles such as bacteria and viruses. Preferably, this integrated paper is hydrophilic either by using) hydrophilic fibers or rendered hydrophilic with agents known in the art that would not foul the pore structure. By adding heavy metal reducing agents such as zeolites, iron oxidessoxides, manganese oxide, and the like, the integrated paper provides an inexpensive filter medium that can provide chlorine, taste, odor, lead, and arsenic reduction and microbiological interception. Flow rates can range from about 50 to about 80 ml/minute for a 3 in² (19.4 cm²) piece of integrated paper. Pleating or folding this type of integrated paper increases the surface area for improved diffusive interception of chemical and microbiological contaminants. The outer layers of the integrated paper protect the inner layers from fouling due to exposure to natural organic matter (NOM) such as humic and fulvic acids.

Please delete the paragraph beginning on page 22, line 12, and replace it with the following amended paragraph:

An integrated paper of the present invention can be used in conjunction with carbon block filtration media well known in the art. Rather than incorporating the active agents in the bulk carbon block where there would be greater axial dispersion due to the dispersion of the active agents through the structure, the active agents are immobilized in the integrated paper and wrapped around or within the interior core of the carbon block. The axial dispersion of the active agents is then collapsed within the integrated paper where the interstitial spaces between the particles of active agents are minimized. Addition of the integrated paper wrap to any carbon block provides inexpensive chemical and microbiological reduction capabilities. Water softening agents such as, for example, zeolites, can be incorporated into the integrated paper for additional functionality. The integrated paper of the present invention can be used in conjunction with a MATRIKX® carbon block filtration media sold by ~~KX Industries, L.P., Orange, Connecticut~~
KX Technologies, LLC, West Haven, Connecticut.